

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	NHS Health Check programme: A rapid review update.
<b>AUTHORS</b>	Tanner, Louise; Kenny, RPW; Still, Madeleine; Ling, Jonathan; Pearson, F; Thompson, Katherine; Bhardwaj-Gosling, R

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Ruth Riley University of Birmingham, MDS
<b>REVIEW RETURNED</b>	07-Jul-2021

<b>GENERAL COMMENTS</b>	<p>Review: NHS Health Check programme: A rapid review update.</p> <p><input type="checkbox"/> The review is well written and your objectives are good – use a subheading to demarcate the obj from the Intro.</p> <p>Introduction</p> <p><input type="checkbox"/> The review covers a 3-4 year period and you may need to expand on the justification for conducting this review. Why now?</p> <p><input type="checkbox"/> Your review is too short and does not provide sufficient context and background to the NHS Health Checks and the existing literature. You need to include a critique of NHS Health Checks and their potential to compound existing health inequalities and to highlight the negative repercussions/implications of the medical gaze, medicalization etc al la Foucault.</p> <p>Methods</p> <p><input type="checkbox"/> You do not use to a scoping review methodology which is a major weakness of the methodology section and suffers from a lack of transparency on the methodology.</p> <p><input type="checkbox"/> You need to include sub-heading which refer to key stages of the review process from Screening to Data Extraction, appraisal.</p> <p><input type="checkbox"/> You need to include a flow chart of the screening process which provides transparency in relation to the selection and de-selection of included studies.</p> <p><input type="checkbox"/> How did you address discrepancies or disagreements in relation to eligibility and appraisal?</p> <p><input type="checkbox"/></p> <p>Discussion</p> <p><input type="checkbox"/> My main concern about this review is the discussion section. You do not provide clarity on how the findings of your review compare, compliment or add to the exiting literature.</p> <p><input type="checkbox"/> Further to the point made about the Intro, I think you need to provide a more reflective critique of the potential to widen inequalities given the demographics of participants identified in your review</p> <p><input type="checkbox"/> Your implications for policy and practice will be useful for policy makers and commissioners..</p>
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<b>REVIEWER</b>	Christopher Gidlow Staffordshire University, Centre for Sport, Health and Exercise
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	Research
<b>REVIEW RETURNED</b>	23-Jul-2021

<b>GENERAL COMMENTS</b>	<p>Please note: in case the formatting and paragraph separate is lost, I have uploaded this text as a word document.</p> <p>The authors present a systematic review of NHSHC research to update and respond to points raised by Usher et al. in their 2017 rapid review. The authors' conclusions are informed by evidence from the original review and the newly identified studies.</p> <p>Overall, the review appears to have been robust in its implementation, although the brevity of the report does mean that important detail is missing in places. The overall brevity and errors/inconsistencies in formatting citations etc. give it a feel of a paper that has been somewhat hastily put together from the substantive document from which these summary findings were taken. However, the review certainly provides a useful update, and I would be pleased to recommend its publication subject to some amendments, only one of which is substantive.</p> <p>Major comment:</p> <p>I recommend that the authors update the searches. The review covers literature up to the end of 2019. Whilst I am sympathetic to practical reasons why there might have been delays in turning the full review into this summary, there have been 20+ articles relating to NHSHC in the subsequent 18 months, including the national data extraction of 9m patient records (also published in BMJ Open last year). These would make an important contribution to this updated review, which is already a little out of date. To illustrate, the below list is the based on a quick PubMed search for 'NHS Health Check' in title/abstract, 01/01/2020 – 01/07/2021 (but I know of others not listed that would be picked up by your searches):</p> <p>NHS Health Check Programme: a qualitative study of prison experience. Williams M, Thomson L, Butcher E, Morriss R, Khunti K, Packham C. J Public Health (Oxf). 2020 Nov 20;fdaa189. doi: 10.1093/pubmed/fdaa189. Online ahead of print. PMID: 33215193</p> <p>NHS Health Check and healthy lifestyle in Leicester, England: analysis of a survey dataset. Chattopadhyay K, Biswas M, Moore R. Perspect Public Health. 2020 Jan;140(1):27-37. doi: 10.1177/1757913919834584. Epub 2019 May 9. PMID: 31070547</p> <p>Influences on NHS Health Check behaviours: a systematic review. Atkins L, Stefanidou C, Chadborn T, Thompson K, Michie S, Lorencatto F. BMC Public Health. 2020 Sep 17;20(1):1359. doi: 10.1186/s12889-020-09365-2. PMID: 32938432 Free PMC article.</p> <p>Engaging with stakeholders to inform the development of a decision-support tool for the NHS health check programme: qualitative study. Hyseni L, Guzman-Castillo M, Kypridemos C, Collins B, Schwaller E, Capewell S, Boland A, Dickson R, O'Flaherty M, Gallacher K, Hale P, Lloyd-Williams F.</p>
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	<p>BMC Health Serv Res. 2020 May 11;20(1):394. doi: 10.1186/s12913-020-05268-5.  PMID: 32393313 Free PMC article.  NHS Health Checks for people with mental ill-health 2013-2017: an observational study.  Garriga C, Robson J, Coupland C, Hippisley-Cox J.  Epidemiol Psychiatr Sci. 2020 Nov 26;29:e188. doi: 10.1017/S2045796020001006.  PMID: 33239117 Free PMC article.  A systematic review of factors influencing NHS health check uptake: invitation methods, patient characteristics, and the impact of interventions.  Bunten A, Porter L, Gold N, Bogle V.  BMC Public Health. 2020 Jan 21;20(1):93. doi: 10.1186/s12889-019-7889-4.  PMID: 31964366 Free PMC article.  Fidelity of the delivery of NHS Health Checks in general practice: an observational study.  Paxton B, Mills K, Usher-Smith JA.  BJGP Open. 2020 Oct 27;4(4):bjgpopen20X101077. doi: 10.3399/bjgpopen20X101077. Print 2020 Oct.  PMID: 32967842 Free PMC article.  A qualitative exploration of two risk calculators using video-recorded NHS health check consultations.  Riley V, Ellis NJ, Cowap L, Grogan S, Cottrell E, Crone D, Chambers R, Clark-Carter D, Fedorowicz S, Gidlow C.  BMC Fam Pract. 2020 Dec 3;21(1):250. doi: 10.1186/s12875-020-01315-6.  PMID: 33272217 Free PMC article.  NHS Health Check programme: a protocol for a realist review.  Duddy C, Wong G, Gadsby EW, Krska J, Hibberd V.  BMJ Open. 2021 Apr 14;11(4):e048937. doi: 10.1136/bmjopen-2021-048937.  PMID: 33853809 Free PMC article.  Evaluation of the uptake and delivery of the NHS Health Check programme in England, using primary care data from 9.5 million people: a cross-sectional study.  Patel R, Barnard S, Thompson K, Lagord C, Clegg E, Worrall R, Evans T, Carter S, Flowers J, Roberts D, Nuttall M, Samani NJ, Robson J, Kearney M, Deanfield J, Waterall J.  BMJ Open. 2020 Nov 5;10(11):e042963. doi: 10.1136/bmjopen-2020-042963.  PMID: 33154064 Free PMC article.  Modelling tool to support decision-making in the NHS Health Check programme: workshops, systematic review and co-production with users.  O'Flaherty M, Lloyd-Williams F, Capewell S, Boland A, Maden M, Collins B, Bandosz P, Hyseni L, Kypridemos C.  Health Technol Assess. 2021 May;25(35):1-234. doi: 10.3310/hta25350.  PMID: 34076574 Free PMC article.  Evaluation of a very brief pedometer-based physical activity intervention delivered in NHS Health Checks in England: The VBI randomised controlled trial.  Hardeman W, Mitchell J, Pears S, Van Emmeris M, Theil F, Gc VS, Vasconcelos JC, Westgate K, Brage S, Suhrcke M, Griffin SJ, Kinmonth AL, Wilson ECF, Prevost AT, Sutton S; VBI Research Team.  PLoS Med. 2020 Mar 6;17(3):e1003046. doi: 10.1371/journal.pmed.1003046. eCollection 2020 Mar.</p>
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	<p>PMID: 32142507 Free PMC article. Clinical Trial. Engagement with advice to reduce cardiovascular risk following a health check programme: A qualitative study. Alageel S, Gulliford MC, Wright A, Khoshaba B, Burgess C. Health Expect. 2020 Feb;23(1):193-201. doi: 10.1111/hex.12991. Epub 2019 Oct 23.</p> <p>PMID: 31646710 Free PMC article. Investigation of Cardiovascular Health and Risk Factors Among the Diverse and Contemporary Population in London (the TOGETHER Study): Protocol for Linking Longitudinal Medical Records. Dharmayat K, Woringer M, Mastellos N, Cole D, Car J, Ray S, Khunti K, Majeed A, Ray KK, Seshasai SRK. JMIR Res Protoc. 2020 Oct 2;9(10):e17548. doi: 10.2196/17548.</p> <p>PMID: 33006568 Free PMC article. Evaluating stakeholder involvement in building a decision support tool for NHS health checks: co-producing the WorkHORSE study. Lloyd-Williams F, Hyseni L, Guzman-Castillo M, Kypridemos C, Collins B, Capewell S, Schwaller E, O'Flaherty M. BMC Med Inform Decis Mak. 2020 Aug 10;20(1):182. doi: 10.1186/s12911-020-01205-y.</p> <p>PMID: 32778087 Free PMC article. Using Normalization Process Theory as a Practical Tool Across the Life Course of a Qualitative Research Project. McNaughton RJ, Steven A, Shucksmith J. Qual Health Res. 2020 Jan;30(2):217-227. doi: 10.1177/1049732319863420. Epub 2019 Jul 26.</p> <p>PMID: 31347440 Telephone outreach by community workers to improve uptake of NHS Health Checks in more deprived localities and minority ethnic groups: a qualitative investigation of implementation. Stone TJ, Brangan E, Chappell A, Harrison V, Horwood J. J Public Health (Oxf). 2020 May 26;42(2):e198-e206. doi: 10.1093/pubmed/fdz063.</p> <p>PMID: 31188440 Incorporating a brief intervention for personalised cancer risk assessment to promote behaviour change into primary care: a multi-methods pilot study. Mills K, Paxton B, Walter FM, Griffin SJ, Sutton S, Usher-Smith JA. BMC Public Health. 2021 Jan 23;21(1):205. doi: 10.1186/s12889-021-10210-3.</p> <p>PMID: 33485309 Free PMC article. Evaluation of the Diabetes Screening Component of a National Cardiovascular Risk Assessment Programme in England: a Retrospective Cohort Study. Palladino R, Vamos EP, Chang KC, Khunti K, Majeed A, Millett C. Sci Rep. 2020 Jan 27;10(1):1231. doi: 10.1038/s41598-020-58033-3.</p> <p>PMID: 31988330 Free PMC article. What do patients want? A qualitative exploration of patients' needs and expectations regarding online access to their primary care record. Davidge G, Sanders C, Hays R, Morris R, Atherton H, Mold F, McMillan B. Br J Gen Pract. 2020 Jun;70(suppl 1):bjgp20X711245. doi: 10.3399/bjgp20X711245.</p> <p>PMID: 32554652 NHS Health Checks: an observational study of equity and outcomes 2009-2017. Robson J, Garriga C, Coupland C, Hippisley-Cox J. Br J Gen Pract. 2021 Feb 12;BJGP.2020.1021. doi:</p>
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	<p>10.3399/BJGP.2020.1021. Online ahead of print.  PMID: 33587723 Free PMC article.  Increasing uptake of NHS Health Checks: a randomised controlled trial using GP computer prompts.  Gold N, Tan K, Sherlock J, Watson R, Chadborn T.  Br J Gen Pract. 2021 May 27:BJGP.2020.0887. doi: 10.3399/BJGP.2020.0887. Online ahead of print.  PMID: 34048362 Free PMC article.  Cardiovascular disease risk communication in NHS health checks: video-stimulated recall interviews with practitioners.  Gidlow CJ, Ellis NJ, Riley V, Cowap L, Crone D, Cottrell E, Grogan S, Chambers R, Calvert S, Clark-Carter D.  BJGP Open. 2021 Jun 25:BJGPO.2021.0049. doi: 10.3399/BJGPO.2021.0049. Online ahead of print.  PMID: 34172476</p> <p>Minor comments:</p> <p><b>ABSTRACT</b>  - the conclusions do not reflect the results, at all. The results focus too much on uptake, which (as it stands) are not mentioned in the conclusions. This balance needs to be addressed.</p> <p><b>ARTICLE SUMMARY</b>  - Despite the amount of attention given to uptake in the review and abstract, it is not mentioned here</p> <p><b>INTRODUCTION</b>  - This is very brief. I appreciate the word limit, but this needs more context in terms of the main findings from Usher et al. as a minimum.  - Check citation formatting throughout as part of a thorough proof read.</p> <p><b>METHODS</b>  - p5, line 8 'Two authors (out of ..... ) independently reviewed...etc'. Please amend to clarify which authors did what. It is not clear at present.  - p5 line 15 – 'data extraction was validated' – how? missing detail  - p5 line 17/18 – 'One reviewer (xx or xx) data extracted quantitative studies'. Again, this is not clear. Do you mean that two authors extracted data, but not in duplicate?  - p5 line 21/22 – there is lack of detail around how data were extracted from qualitative studies, and how discrepancies were discussed/resolved/etc.  - p5 line 44-47 – please give some detail what this three-stage synthesis approach entailed. At least some basic info.</p> <p><b>RESULTS</b>  - Figure 1 – this is not labelled, and the total number of articles/hits in the abstract does not match the figure  - Data = plural – check throughout that the wording is correct  - p6 lines 46-58 – this description of uptake by ethnic groups is confusing. Please revisit to clarify.  - p7 line 34 – 'Objective 2.1 Socio-demographic factors of uptake' – this wording does not make sense. Do you mean soc-demog determinants of uptake? correlates? patterning?  - p7 line 51 – These finding fit under Objective 1. There is overlap</p>
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	<p>between differences between those who attend/do not attend and some of these findings from observational studies in Obj 2.1 (of the 12 studies, it seems 10 were observational – do these belong in Obj 1?).</p> <ul style="list-style-type: none"> <li>- p8 line 5 – change invitational to invitation</li> <li>- p8 line 30 – change invites to invitations</li> <li>- p9 line 34 – Algeel et al 2020, but as it stands your searches stopped in 2019</li> <li>- p9 line 57 and p10 line 23-24 – for Obj 4 certainty was moderate with 15 qualitative studies and 1 large quantitative study. For Obj 5, the rating is low to moderate with a reason for the lower rating being the ‘subjective nature’ of studies. This does not seem like consistent reasoning. please can this be amended to clarify.</li> <li>- p11 lines 45-47 – huge range in proportions of attendees offered risk management. Please comment and/or explain why.</li> </ul> <p><b>DISCUSSION</b></p> <ul style="list-style-type: none"> <li>- p13 line 41 – telephone invitations seem to have been lumped in as opportunistic / personalised, but I am not sure that is correct. A telephone invitation could be a standard call (i.e., not using personalised patient info) and is not opportunistic. I would argue that this could be a separate invitation type or verbal invitation.</li> <li>- p13 line 58-59 – ‘we found variation in risk management referrals across the reviewed studies’ – as above, we need some discussion of this. It is an important finding but consideration of why/the implications/etc. is missing</li> </ul>
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#### VERSION 1 – AUTHOR RESPONSE

Minor comments				
Number	Reviewer 1 comments	Response	Page numbers	Notes
1	The review is well written and your objectives are good – use a subheading to demarcate the obj from the Intro.	We thank the reviewer for their kind words regarding our review. As requested, a sub-heading has been included.	5	
2	The review covers a 3-4 year period and you may need to expand on the justification for conducting this review. Why now?	<p>Further justification has been introduced into the Introduction:</p> <p><i>‘it is important to consistently update and review available evidence to assess the impact of NHS-HC and the extent to</i></p>	4	

		<p><i>which it is meeting the goal of addressing health inequalities. Additionally, a review of the NHS-HC programme was announced in the Government's prevention green paper(10) and this evidence review was undertaken with the intention of informing that review and potential changes to policy.'</i></p>		
3	<p>Your review is too short and does not provide sufficient context and background to the NHS Health Checks and the existing literature. You need to include a critique of NHS Health Checks and their potential to compound existing health inequalities and to highlight the negative repercussions/implications of the medical gaze, medicalization etc al la Foucault.</p>	<p>Greater context has now been provided in the introduction. This includes important limitations of the programme such as the impact on health inequalities, and financial viability.</p>	4	
4	<p>You do not use to a scoping review methodology which is a major weakness of the methodology section and suffers from a lack of transparency on the methodology.</p>	<p>We see the benefit of using a scoping methodology for this review. Unfortunately, as the review was an update, we made the decision to follow the protocol used in the original review. This was to ensure consistency across methodology used. Additionally,</p>	NA	

		this was a requirement from the funding commissioners.		
5	You need to include sub-heading which refer to key stages of the review process from Screening to Data Extraction, appraisal.	As suggested, we have split the study selection and data extraction subheading into two separate parts. This should provide greater clarity.	6	
6	You need to include a flow chart of the screening process which provides transparency in relation to the selection and de-selection of included studies.	The PRISMA flow diagram (figure 1) is available as a supplementary file, as we were not permitted to insert it in the main body of the text, as per the requirements of the journal. We apologise for any confusion.	8	
7	How did you address discrepancies or disagreements in relation to eligibility and appraisal?	Any discrepancies or disagreements were resolved via discussion between the reviewers. If necessary, a third reviewer adjudicated. This information has now been included in each sub section, where appropriate.	6	
8	My main concern about this review is the discussion section. You do not provide clarity on how the findings of your review compare, compliment or add to the exiting literature.	We have now added several sections to the discussion to clarify how our work compares to and extends the previous review.	16	



9	Further to the point made about the Intro, I think you need to provide a more reflective critique of the potential to widen inequalities given the demographics of participants identified in your review	We have added this point to the discussion.	18	
10	Your implications for policy and practice will be useful for policy makers and commissioners.	We thank the reviewer for their positive comment and their previous revisions that have improved our manuscript.	NA	
	<b>Reviewer 2 comments</b>			
1	<p>ABSTRACT</p> <ul style="list-style-type: none"> <li>- the conclusions do not reflect the results, at all. The results focus too much on uptake, which (as it stands) are not mentioned in the conclusions. This balance needs to be addressed.</li> </ul>	We apologise for this inconsistency. The results and conclusion sections of the abstract have now been updated to address the balance.	2	
2	<p>ARTICLE SUMMARY</p> <ul style="list-style-type: none"> <li>- Despite the amount of attention given to uptake in the review and abstract, it is not mentioned here</li> </ul>	<p>Thanks for your comment. I can't see a summary section and assume this refers to the Strengths and Limitations. Within this section I have updated the information next to bullet point 4 to correspond with the abstract, by adding the following sentence : <i>'Opportunistic invitations could increase uptake amongst these under-represented demographic groups.'</i></p>	3	
3	INTRODUCTION	The main findings from the review by	5	

	<p>- This is very brief. I appreciate the word limit, but this needs more context in terms of the main findings from Usher et al. as a minimum.</p>	Usher-Smith et al. have been incorporated into the introduction.		
4	-Check citation formatting throughout as part of a thorough proof read.	Number referencing has been used throughout the document and Harvard style in-text citations have been removed.	Throughout the document.	
5	<p>METHODS</p> <p>- p5, line 8 'Two authors (out of ..... ) independently reviewed...etc'. Please amend to clarify which authors did what. It is not clear at present.</p>	For efficiency, records were split into batches each assigned to two pairs of reviewers (out of three reviewers in total) to screen independently. The text has been updated to clarify this.	6	
6	- p5 line 15 – 'data extraction was validated' – how? missing detail	<p>This sentence has been changed to:</p> <p><i>'A random sample of 10% of the data extraction completed in the original review (1) was checked by LT and found to be consistent with information reported in the primary studies.'</i></p>	6	
7	- p5 line 17/18 – 'One reviewer (xx or xx) data extracted quantitative studies'. Again, this is not clear. Do you meant that two authors extracted data, but not in duplicate?	<p>This sentence has been amended to:</p> <p><i>'Data from each quantitative study was extracted by a single reviewer (either RPWK or</i></p>	6	

		LT).'		
8	- p5 line 21/22 – there is lack of detail around how data were extracted from qualitative studies, and how discrepancies were discussed/resolved/etc.	<p>The following information has been added to Data extraction section:</p> <p><i>'Pertinent qualitative data including direct quotes, meanings, concepts and themes in duplicate (by MS and FP) with discrepancies discussed and resolved. Duplicate extraction was completed for each qualitative paper by two reviewers from differing standpoints so as not to subconsciously affect the data being extracted and synthesised.'</i></p>	6	
9	- p5 line 44-47 – please give some detail what this three-stage synthesis approach entailed. At least some basic info.	<p>The following text has been added:</p> <p><i>'This approach involves 'line-by-line' coding of the findings according to the content and meaning; developing 'descriptive themes' by grouping codes according to similarities and differences; generating 'analytical themes'</i></p>	7	

		<i>based on the reviewer's interpretation of the data in relation to the research question.'</i>		
10	<p>RESULTS</p> <p>- Figure 1 – this is not labelled, and the total number of articles/hits in the abstract does not match the figure</p>	<p>A label has been added to figure 1 as follows:</p> <p><i>'Figure 1: PRISMA flow chart depicting the flow of included and excluded studies'</i></p> <p>The numbers in the figure and abstract should now add up.</p>	8	
11	<p>- Data = plural – check throughout that the wording is correct</p>	<p>Throughout the manuscript we are referring to Data as a plural word which is appropriate to how it's been referred to in the text</p>		
	<p>- p6 lines 46-58 – this description of uptake by ethnic groups is confusing. Please revisit to clarify.</p>	<p>The text has been edited to make it more transparent</p>	10	
12	<p>- p7 line 34 – 'Objective 2.1 Socio-demographic factors of uptake' – this wording does not make sense. Do you mean socio-demographic determinants of uptake? correlates? patterning?</p>	<p>The wording had been changed to <i>'Socio-demographic determinants of uptake'</i></p>	9	
13	<p>- p7 line 51 – These findings fit under Objective 1. There is overlap between differences between those who attend/do not attend and some of these findings from observational studies in Obj 2.1 (of the 12 studies, it seems 10 were observational – do these belong in</p>	<p>The studies presented in 2.1 have similar data but don't refer to actual attendance but rather uptake.</p>		<p>Attendance refers to the number of attendees as a function of those who are eligible; uptake refers to the number of</p>

	Obj 1?).			attendees as a function of those who are invited.
14	- p8 line 5 – change invitational to invitation	All occurrences of the word invitational have been changed to invitation		
15	- p8 line 30 – change invites to invitations	Occurrences of the word invites have been changed to invitations where appropriate		
16	- p9 line 34 – Algeel et al 2020, but as it stands your searches stopped in 2019	The on-line version of this article was available in 2019 and this is what we picked up in the searches. Before submitting this review, the paper version was published (in 2020) which is what we cited in the paper. The 2020 reference has been replaced with the 2019 reference in the bibliography.	Reference number 40, page 22.	
17	- p9 line 57 and p10 line 23-24 – for Obj 4 certainty was moderate with 15 qualitative studies and 1 large quantitative study. For Obj 5, the rating is low to moderate with a reason for the lower rating being the 'subjective nature' of studies. This does not seem like consistent reasoning. please can this be amended to clarify.	The results from studies addressing objective 5 were less consistent across different study designs compared to those addressing objective 4, which is why the overall assessment of certainty differs between these objectives. For consistency, the wording in the	12	

		GRADE summary for objective 4 has been updated to say that the evidence addressing this objective also lacked objectivity.		
18	- p11 lines 45-47 – huge range in proportions of attendees offered risk management. Please comment and/or explain why.	The following text has been added: <i>'This is likely reflective of geographical variations in number of referrals between areas'</i>	14	
19	DISCUSSION  - p13 line 41 – telephone invitations seem to have been lumped in as opportunistic / personalised, but I am not sure that is correct. A telephone invitation could be a standard call (i.e., not using personalised patient info) and is not opportunistic. I would argue that this could be a separate invitation type or verbal invitation.	The text has been modified to:  <i>'Opportunistic invitations, telephone invitations and text message reminders increased uptake compared to the standard invitation letters.'</i>	16	
20	- p13 line 58-59 – 'we found variation in risk management referrals across the reviewed studies' – as above, we need some discussion of this. It is an important finding but consideration of why/the implications/etc. is missing	This sentence has been amended to: <i>'We found variations in risk management referrals across the reviewed studies, possibly reflecting geographic variations.'</i>	16	

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Ruth Riley University of Birmingham, MDS
<b>REVIEW RETURNED</b>	12-Oct-2021
<b>GENERAL COMMENTS</b>	The authors have satisfactorily addressed my comments.

<b>REVIEWER</b>	Christopher Gidlow Staffordshire University, Centre for Sport, Health and Exercise Research
<b>REVIEW RETURNED</b>	02-Nov-2021

<b>GENERAL COMMENTS</b>	<p>Apologies for my delay in returning this re-rereview. The authors have addressed most of the comments well and I am happy that this is accepted subject to the few minor points noted for a few of them (below). If the revision is not listed below, please assume that I am happy with the response.</p> <p>Major comment – to update searches.</p> <p>I appreciate the lack of resources to do this and suggest that the authors acknowledge the limitation (i.e., that the searches are now 2 years old and so do not include the most up to date knowledge given the number of papers published since, esp. Patel et al 2020 analysis of 9.5 million invitations), and state the date ranges in the abstract.</p> <p>Minor comments:</p> <p><b>ABSTRACT</b> - This is better. One sentence could be amended as it doesn't make sense: 'However, findings from the original review remain largely unchanged, which may reflect the larger number of studies included (n=68).'</p> <p>I suggest stopping the sentence after 'unchanged'.</p> <p><b>METHODS</b> - Fine. Just check wording: 'Pertinent qualitative data including direct quotes, meanings, concepts and themes WERE EXTRACTED in duplicate (by MS and FP) with discrepancies discussed and resolved.</p> <p><b>RESULTS</b> - p6 lines 46-58 – this description of uptake by ethnic groups is confusing. Please revisit to clarify Fine, but should it be non-White or ethnic minorities? <a href="https://www.ethnicity-facts-figures.service.gov.uk/style-guide/writing-about-ethnicity">https://www.ethnicity-facts-figures.service.gov.uk/style-guide/writing-about-ethnicity</a></p>
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#### VERSION 2 – AUTHOR RESPONSE

<b>Reviewer: 1</b>		
The authors have satisfactorily addressed my comments	We thank reviewer 1 for their feedback, which helped improve the manuscript.	
<b>Reviewer: 2</b>		
Major comment – to update searches.	The date ranges of searches undertaken for this review update have	

<p>I appreciate the lack of resources to do this and suggest that the authors acknowledge the limitation (i.e., that the searches are now 2 years old and so do not include the most up to date knowledge given the number of papers published since, esp. Patel et al 2020 analysis of 9.5 million invitations), and state the date ranges in the abstract.</p>	<p>been included in the methods section of the abstract (page 2) and the first bullet point in the 'Strengths and limitations of the study' (page 3)</p> <p>The following has been added to the 'Strengths and weaknesses of the study' section in the discussion: <i>'Also, the searches undertaken for this review update were completed in December 2019, two years prior to publication of this manuscript. The evidence presented therefore, does not include more recent publications.'</i></p>	<p>2, 3, 17-18</p>
<p><b>ABSTRACT</b></p> <p>- This is better.</p> <p>One sentence could be amended as it doesn't make sense: 'However, findings from the original review remain largely unchanged, which may reflect the larger number of studies included (n=68).'</p> <p>I suggest stopping the sentence after 'unchanged'.</p>	<p>The following has been removed from this sentence in the abstract: <i>‘, which may reflect the larger number of studies included (n=68).'</i></p>	<p>2</p>
<p><b>METHODS</b></p> <p>- Fine. Just check wording: 'Pertinent qualitative data including direct quotes, meanings, concepts and themes WERE EXTRACTED in duplicate (by MS and FP) with discrepancies discussed and resolved.</p>	<p>The wording of this sentence has been changed to: <i>'Pertinent qualitative data including direct participant quotes, researcher interpretations and concepts were extracted in duplicate (by MS and FP) with discrepancies discussed and resolved. Data were coded against the themes previously identified.<sup>1</sup> Emergent themes not previously identified were discussed and coded (by</i></p>	<p>6-7</p>



	<i>MS and FP).</i>	
<p>RESULTS</p> <p>- p6 lines 46-58 – this description of uptake by ethnic groups is confusing. Please revisit to clarify Fine, but should it be non-White or ethnic minorities?</p>	<p>This sentence has been changed to:</p> <p><i>‘For example, community data from Leicester showed that people from Black and minority ethnic (BME) groups were more likely to attend than white people’</i></p>	9